



NM_001768 & M27161
Homo sapiens (Human)
Complete CD8 alpha mRNA

Predicted polypeptide sequence

MALPVTALLLPLALLLHAARPSQFRVSPLDRTWNLGETVELKQ
VLLSNPTSGCSWLFQPRGAAASPTFLLYLSQNKPKAAEGLDTRFSGKRLGDTFVLT
SDFRRENEGYYFCSALSNSIMYFSHFVPVFLPAKPTTTPAPRPPTPAPTASQPLSLR
PEACRPAAGGAVHTRGLDFACDIYWAPLAGTCGVLLLSLVITLYCNHRNRRRVCKCP
RPVVKSGDKPSLSARYV

mRNA

1 gaaatcaggc tcggggccgg ccgaagggcg caacttccc cctcggcgc cccaccggct
61 cccgcgcgcc tcccctcgc cccgagctc gagccaagca gcgtcctggg gagcgcgtca
121 tggccttacc agtgaccgcc ttgctcctgc cgtcggcctt gctgctccac gcgcgcaggc
181 cgagccagtt ccgggtgtcg ccgctggatc ggacctggaa cctgggcgag acagtggagc
241 tgaagtgccg ggtgctgctg tccaaccoga cgtcgggctg ctgctggctc ttccagccgc
301 ggcggcgcgc cgcagtcgc accttctcc tatacctctc ccaaaacaag cccaaggcgg
361 ccgaggggct ggacaccag cggctctcgg gcaagagggt gggggacacc ttgctctca
421 cctgagcga cttccgcga gagaacgagg gctactattt ctgctggcc ctgagcaact
481 ccatcatgta cttcagccac ttctgcccgg tcttctgcc agcgaagccc accacgagc
541 cagcgcgcgc accaccaaca ccgggcgcca ccatcgctc gcagccctg tccctgcgc
601 cagaggcgtg ccggccagcg gcggggggcg cagtgcacac gagggggctg gacttcgct
661 gtgatacta catctggcg ccttggcg ggactgttg ggtctctc ctgtactgg
721 ttatcacct ttactgcaac cacaggaacc gaagacgtgt ttgcaaatgt ccccgccctg
781 tggtaaatac gggagacaag ccagccctt cggcgagata cgtctaacc tgtgaacag
841 ccactacatt actcaaaact gagatcttc ctttgaggg agcaagctt tcccttcat
901 ttttccagt cttctccct gtgtattcat tctatgatt attatttag tggggcggg
961 gtgggaaaga ttacttttc ttatgtgt ttacgggaaa caaaactagg taaaatctac

FIG. 1A-1

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1021 agtacaccac aaggggcaca atactgttg ggcacatcg cggtagggcg tggaaagggg
1081 caggccagag ctacccgcag agttctcaga atcatgctga gagagctgga ggcacccaig
1141 ccatctcaac ctctccccg cccgttttac aaagggggag gctaaagccc agagacagct
1201 tgatcaaagg cacacagcaa gtcaggggtg gagcagtagc tggagggacc ttgtctcca
1261 gtcaggggt cttctcca caccattcag gtccttctt ccgaggcccc tgtctcagg
1321 tgagggtgct gagtctcaa cggcaaggga acaagtactt ctgtatact gggatactgt
1381 gccagagcc tcgaggaggt aatgaattaa agaagagaac tgccttggc agagtctat
1441 aatgtaaaca atacagact tttttttt ataataaagc ctaaaattgt atagacctaa
1501 aataaaatga agtgggtgagc ttaacctgg aaaatgaatc cctctatctc taaagaaaat
1561 ctcttgaaa cccctatgtg gaggcggaat tgctctcca gcccttgcac tgcagagggg
1621 cccatgaaag aggacaggct acccctttac aaatagaatt tgagcatcag tgagggttaa
1681 ctaaggccct ctgtaatctc tgaatttgag atacaaacat gttctggga tcaatgatga
1741 cttttatc tttgtaaaga caattgttg agagccctc acacagccct ggcctctgt
1801 caactagcag atacagggat gaggcagacc tgactctctt aaggaggctg agagcccaa
1861 ctgctgtccc aaacatgcac ttcttgctt aaggatatgt acaagcaatg cctgcccatt
1921 ggagagaaaa aacttaagta gataaggaaa taagaaccac tcataattct tcacctagg
1981 aataatctcc tgtaatatg gtgtacattc ttctgatta tttctacac atacatgtaa
2041 aatatgtctt ictttttaa ataggggtg actatgctgt tatgagtggc ttaatgaat
2101 aaacatttgt agcatctct ttaatggga aacagcaaaa aaaaaaaaaa aaaaaaaaaa
2161 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
2221 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a

FIG._1A-2

NM_171827

Homo sapiens secreted protein derived from alternate transcript

Predicted polypeptide

MALPVTALLLPLALLLHAARPSQFRVSPLDRTWNLGETVELKCQVLLSNPTSG
CSWLFQPRGAAASPTFLLYLSQNKPKAAEGLDQRFSGKRLGDTFVLTLSDFR
RENEGYFCSALSNSIMYFSHFVPVFLPAKPTTTPAPRPPTPAPTIASQPLSLR
PEACRPAAGGAGNRRRVCKCPRPVVKS GDKPSLSARYV

mRNA

1 gaaatcaggc tccgggccgg ccgaagggcg caactttccc cctcggcgc cccaccggct
61 cccgcgcgcc tcccctcgc ccgagcttc gagccaagca gcgtcctggg gagcgcgtca
121 tggccttacc agtgaccgcc ttgctcctgc cgctggcctt gctgctccac gccgccaggc
181 cgagccagtt ccgggtgtcg ccgctggatc ggacctggaa cctggggcgag acagtggagc
241 tgaagtgccg ggtgctgctg tccaaccoga cgtcgggctg ctgtggctc ttccagccgc
301 gcggcgccgc cgccagtccc accttctcc taccctctc ccaaaacaag cccaaggcgg
361 ccgagggggt ggacaccag cggttctcgg gcaagagggt gggggacacc ttgtctca
421 cctgagcga cttcgcga gagaacgagg gctactatt ctgctggcc ctgagcaact
481 ccatcatgta cttcagccac ttgtgcgg lcttctgcc agcgaagccc accacgacgc
541 cagcgccgcg accaccaaca ccggcgccca ccatcgctc gcagccctg tccctgcgc
601 cagaggcgtg ccggccagcg gcggggggcg cagggaaccg aagacgtgt tgc aaatgtc
661 cccggcctgt ggtcaaactg ggagacaagc ccagccttc ggcgagatac gtctaaccct
721 gtgcaacagc cactacatta ctcaaactg agatcctcc tttagagga gcaagtcct
781 ccccttcatt ttccagtc ttctccctg tgtattcatt ccatgatta ttatttagt
841 gggggcgggg tgggaaagat tacttttct ttatgtgtt gacgggaaac aaaactaggt
901 aaaatctaca gtacaccaca agggtcacaa tactgtgtg cgcacatgc ggtagggcgt
961 ggaaaggggc aggcagagc taccgcaga gtctcagaa tcatgtgag agagctggag

FIG._1B-1

1021 gcacccatgc catctcaacc tcttccccgc ccgttttaca aagggggagg ctaaagccca
1081 gagacagctt gatcaaaggc acacagcaag tcagggttgg agcagtagct ggagggacct
1141 tgtctcccag ctccagggctc ttctctccac accattcagg tctttcttfc cgaggccctt
1201 gtctcagggt gaggtgcttg agtctccaac ggcaagggaa caagtacttc ttgatacttg
1261 ggatactgtg cccagagcct cgaggaggta atgaattaaa gaagagaaact gcctttggca
1321 gaggttcata atgtaaaca tctcagactt tttttttta taalcaagcc taaaattgta
1381 tagacctaaa ataaaatgaa gtggtgagct taaccttga aaatgaatcc ctctatctct
1441 aaagaaaatc tctgtgaaac cctatgttg aggcggaatt gctctccag ccttgcatt
1501 gcagaggggc ccatgaaaga ggacaggcta cccctttaca aatagaattt gagcatcagt
1561 gagggttaaac taaggccctc ttgaatctct gaatttgaga tacaacatg ttcttggat
1621 cactgatgac ttttatact ttgtaaagac aattgttga gagccctca cacagccctg
1681 gcctctgctc aactagcaga tacagggatg aggcagacct gactctctta aggaggctga
1741 gagcccaaac tgctgtcca aacatgcact tcttgcctta aggtatgga caagcaatgc
1801 ctgcccattg gagagaaaaa acttaagtag ataaggaaat agaaccact cataattctt
1861 caccttagga ataatctct gttaatatgg tgtacattct tctgattat tttctacaca
1921 tacatgtaaa atatgtctt ctttttaaa tagggttga ctatgctgtt atgagtggct
1981 ttaatgaata aacatttga gcatcctct taatgggtaa acagcaaaaa aaaaaaaaaa
2041 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
2101 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa

FIG. 1B-2

X60223
Pongo pygmaeus (Orangutan)
Complete CD8 alpha mRNA

Predicted polypeptide

MALPVTALLLPLALLLHAARPSQFRVSPLDRTWNLGETVELKCQ
VLLSNPTSGCSWLFQPRGAAASPTFLLYLSQNKPKAAEGLDTQRFSGKRLGDTFVLT
SDFRRENEGYYFCSALSNSIMYFSHFVPVFLPVHTRGLDFACDIYWAPLAGTCGVLL
LSLVITLYCNHRNRRRVCKCPRPVVKSGGKPSLSERYV

mRNA

1 atggccttac ccgtgaccgc ctgtctctg ccgtggcct tgctgtcca cgccgccagg
61 ccgagccagt tccgggtgc gccgtggat cggacctga acctgggca gacggtggag
121 ctgaagtgcc aggtgtgtct gtccaaccgc acgtctggct gctctggct cttccagccg
181 cgtggcgccg ccgccagtcc caccttctc ctatcctct cccaaaacaa gccaaggcg
241 gcgagggggc tggacacca gcggtctcg ggcaagaggt tgggggacac ctctgtctc
301 acctgagcg acttcgcgc ggagaacgaa ggctactatt tctgtcggc cctgagcaac
361 tccatcatgt acttcagcca ctctgtcgc gtctctgc cagtgcacac gagggggctg
421 gacttcgcct gtgatata cactgggcg ccttggcgc ggacctgtg ggtcctctc
481 ctgtactgg ttatcacct ttactgaac cacaggaacc gaagacgtgt ttgcaaagt
541 ccccggcctg tggtaaatac tggaggcaag ccagccttt cggagagata tgtctaa

FIG._1C

XM_132621 & BC030679 & U34881

Mus musculus (Mouse)

Complete CD8 alpha mRNA

Predicted polypeptide

MASPLTRFLSLNLLLLGESIILGSGEAKPQAPELRIFPKKMDAE
 LGQKVDLVCEVLGVSQGC SWLFQNSSSKLPQPTFWVYMASSHNKITWDEKLNSSKLF
 SAMRDTNNKYVLTlnKFSKENEGYYFCSVISNSVMYFSSVVPVLQKVNSTTTKPVLRT
 PSPVHPTGTSQPQRPEDCRPRGSVKGTGLDFACDIYWAPLAGICVALLLSLIITLIC
 YHRSRKRVCKCPSIACLCLKLQGSKWYESVICSALAVSIRC�KSKSGELPLAVHLDIR
 APCKNWEIAGSLVERYGKSGKHSPLSLKAVVESN

mRNA

1 atggcctcac cgttgacccg ctttctgtcg ctgaacctgc tgctgctggg tgagtcgatt
 61 atcctgggga gtggagaagc taagccacag gcacccgaac tcgaaatctt tccaaagaaa
 121 atggacgccg aacttggtca gaaggtggac ctggtatgtg aagtgttggg gtccgtttcg
 181 caaggatgct cttggctctt ccagaactcc agctccaaac tccccagcc caccttctgt
 241 gtctatatgg ctcatccca caacaagata acgtgggacg agaagctgaa ttgctgaaa
 301 ctgttttctg ccatgaggga cacgaataat aagtacgttc tcacctgaa caagttcagc
 361 aaggaaaacg aaggctacta ttctgtctca gtcatcagca actcgggtgat gtacttcagt
 421 tctgtctgc cagtccttca gaaagtgaac tctactacta ccaagccagt gctgcgaact
 481 ccttcacctg tgcacctac cgggacatct cagccccaga gaccagaaga ttgtcggccc
 541 cgtggctcag tgaaggggac cggattggac ttgcctgtg atatttacct ctgggcaccc
 601 ttggccggaa tctgcgtggc ccttctgtct tcttgatca tcacttcat ctgtaccac
 661 aggagccgaa agcgtgttg caaatgtccc agtatagcat gctgtgcct caaactgcaa
 721 ggaagcaagt ggtatgaatc tgtgatctgc tcagctctgg ctgtgagcat cagatgtaac
 781 aatcaaagt caggagaact gcctttagcg gtgcacctgg acatcagagc ccttgtaag
 841 aactgggaaa ttgtggcag tctagtggag cggtagcgta aatctggaaa acactccct
 901 ctgtcactga aggtgtagt agaatccaat taa

FIG._1D-1

Predicted polypeptide

MDAELGQKVDLVCEVLGSVSQGCSWLFQNSSSKLPQPTFVVYMA
 SSHNKITWDEKLNSSSKLFSAMRDTNNKYVLTlnKFSKENEGYYFCSVISNSVMYFSSV
 VPVLQKVNSTTTKPVL RTPSPVHPTGTSQPQRPEDCRPRGSVKGTGLDFACDIYIWAP
 LAGICVALLLSLIITLICYHRSRKRVCPCPRPLVRQEGKPRPSEKIV

mRNA

1 cgttgacccg cttctgtcg ctgaacctgc tgcgtctggg tgagtcgatt atcctgggga
 61 gtggagaagc taagccacag gcacccgaac tccgaatctt tccaaagaaa atggacgcgcg
 121 aacttggtca gaagggtggac ctggtatgtg aagtgttggg gtccgtttcg caaggatgct
 181 cttgctctt ccagaactcc agctccaaac tccccagcc caccttcgtt gtctatatgg
 241 cttatccca caacaagata acgtgggacg agaagctgaa ttctcgaaa ctgtttctg
 301 ccatgaggga cacgaataat aagtacgttc tcacctgaa caagttcagc aaggaaaacg
 361 aaggctacta ttctgtctca gtcatcagca actcgggtgat gtacttcagt tctgtcgtgc
 421 cagtccttca gaaagtgaac tctactacta ccaagccagt gctgcgaact ccttcacctg
 481 tgcacctac cgggacatct cagccccaga gaccagaaga ttgtcgcccc cgtggctcag
 541 tgaaggggac cggattggac ttgcctctg atatttacct ctgggcaccc ttggccggaa
 601 tctgcgtggc cttctgtctg tcttgatca tcaactctat ctgctaccac aggagccgaa
 661 agcgtgtttg caaatgtccc aggccgctag tcagacagga aggcaagccc agacctcag
 721 agaaaattgt gtaaaatggc accgccagga agctacaact actacatgac ttcagatctc
 781 ttcttgcaag aggccaggcc ctctcttttc aagtttctg ctgtctatg tattgccctc
 841 tgtattgtt tagtaggggt gtgatgggga cagttcctt ttctttatga attctcttg
 901 acacaaagca tacttgatg catacaatgg gagtaatgag cagactgaa caccagagct
 961 agttccagtt tcgggggtcca tgcgtctgtt ggctcagca cccactgat ataaatctcc
 1021 tgtctgcccc tcatatagaa gaagctgaag atcagagggtg gaaacagcag gatctgtaga
 1081 cccggagaga acccaagcta gaggaacct cactgactgg tgcagggaac tcacccccat
 1141 cccctgagct ctctgtttag gtagtgtct ttagtatagc atgctgtgc ctcaaactgc
 1201 aaggaagcaa gtggtatgaa tctgtatct gctcagctct ggctgtgagc atcagatga
 1261 acaaatcaaa gtcaggagaa ctgcctttag cgggtgcacct ggacatcaga gccccttga
 1321 agaactggga aattgctggc agtctagtgg agcgggtacgg taaatctgga aaacactccc
 1381 ctctgtcact gaaggctga glagaatcca attaaagcta ttcaaaccac aaaaaaaaaa
 1441 aaaaaaaaaa aa

Predicted polypeptide

MASPLTRFLSLNLLLMGESIILGSGEAKPQAPELRIFPKKMDAE
LGQKVDLVCEVLGSVSQGCSWLFQNSSSKLPQPTFVVYMASSHNKITWDEKLNSSKLF
SAVRDTNNKYVLTlnKFSKENEGYYFCSVISNSVMYFSSVVPVLQKVNSTTTKPVLR
PSPVHPTGTSQPQRPEDCRPRGSVKGTGLDFACDIYIWAPLAGICVAPLLSLITLIC
YHRSRKRVCCKPRPLVRQEGKPRPSEKIV

mRNA

1 atggcctcac cgtgaccog cttctgtcg ctgaacctgc tgctgatggg tgagtcgatt
61 atctgggga gtgagaagc taagccacag gcaccogaac tccgaatctt tccaaagaaa
121 atggacgccg aactggcca gaaggtggac ctggtatgtg aagtgtggg glccgttctg
181 caaggatgct ctggctctt ccagaactcc agctccaaac tccccagcc cacctcgtt
241 gtctatatgg ctcatccca caacaagata acgtgggacg agaagctgaa ttctcgaaa
301 ctgtttctg ccgtgaggga cacgaataat aagtacgtt tcacctgaa caagttcagc
361 aaggaaaacg aaggctacta ttctgtctca gtcatcagca actcgggtgat gtacttcagt
421 tctgtcgtgc cagtcctca gaaagtgaac tctactacta ccaagccagt gctgcgaact
481 cctcacctg tgcacctac cgggacatct cagccccaga gaccagaaga ttgtcggccc
541 cgtggctcag tgaaggggac cggattggac ttgcctgtg atattacat ctgggcaccc
601 ttggccggaa tctgcgtggc cctctgtctg tcttgatca tcaactcat ctgtaccac
661 aggagccgaa agcgtgttg caaatgtccc aggccgctag tcagacagga aggcaagccc
721 agacctcag agaaaattgt glaa

FIG. 1D-3

NM_031538
Rattus norvegicus (Rat)
Complete CD8 alpha mRNA

Predicted polypeptide

MASRVICFLSLNLLLLDVITRLQVSGQLQLSPKKVDAEIGQEVK
LTCEVLRDTSQGCSWLFRNSSSELLQPTFIYVSSSRSKLNDILDPNLF SARKENNKY
ILTL SKFSTKNQGYFCSITSNSVMYFSPLVPVFQKVNSIITKPVTRAPTPVPPPTGT
PRPLRPEACRPGASGSVEGMGLGFACDIYIWAPLAGICAVLLLSLVITLICCHRNRRR
VCKCPRPLVKPRPSEKFV

mRNA

1 ccctagagcc ctgcttgac ctaagggtgct ggtgggacgc acaccatggc ctacagggtg
61 atctgctttc tgcgctgaa cctgctactg ctggatgta tcactaggct ccagggttcc
121 ggacagttac agttgtcacc aaagaaagtg gacgctgaaa ttggccagga ggtgaagcta
181 acatgcgaag tgctgcggga cacttcgcaa ggatgctctt ggctcttccg gaactccagc
241 tccgaactcc tccagccac cttcatcacc tatgtatctt catcccgag caagctgaac
301 gatatactgg atccgaatct gttctctgcc cggaaggaaa acaacaaata catcctcacc
361 ctgagcaagt tcagcactaa aaaccaaggc tactatttct gctcaatcac cagcaactgc
421 gtgatgtact tcagtcctct ggtgccggtg ttccagaaag tgaactctat taccaccaag
481 ccggtgacgc gagctccac accagtgcct cctcctacag ggacaccccg gccctacga
541 ccagaagctt gccgaccgg ggcgagtggc tcagtggagg gaatgggatt gggcttcgcc
601 tgcgatattt acatctgggc acccttgcc ggaatctgcg cggttcttct gctgtccctg
661 gtcatcactc tcactgctg ccacaggaac cgaaggcgtg ttgcaaagt tccaggccc
721 ctgtcaagc ccagacctc agagaaatc gtgtaaaatg gcgccactag gaagccacaa
781 ctactacatg acttcagaga ttctcacia gagaccgggc cctcctttt cagagtttcc
841 tgctggctta tatattgcc tctgtattgt tttaggggla ggaaggggac agttcctttt
901 tctttatgaa ttctcttga taaaaacat actgtatgc acacaatggg gtaaagatca
961 gactgtaaca ccagagatag tccagtttc agggtcagcg tagctggtgg

FIG. 1E

10 / 32

AY303773

Cavia porcellus (Guinea Pig)

Complete CD8 alpha mRNA

Predicted polypeptide

MAPRGSAWLLLLPVALLLDAATAQGASQFRMSPRELVAQVGTKV

TLRCEVLVPNAPAGCSWLFQPRHDAKGPTFLLYHSASGTKLAPGLEQKRFSPSKSSNT

YTLTVNSFQKRDEGYFCSVSGNMMLYFSPFVPVFLPAPRTTTPPPPTTPTPSVQPT

SVRPETCVVSKGAAGARWLDLSCDVYIWAPLASTCAALLLALVITIICHRRNRQRVCK

CPRPQARSGGKPSPSGKLV

mRNA

1 gcaacttccc cactgcgcat cccctggctc ctggtggctc ctgggcggct cccctcacgc
 61 ctggactcca ggctctgccc tgcgcgcgagg agcgcgcgcc atggccccgc gaggaagcgc
 121 ctggctgctg ctgctgccgg tggccctgct gctcgacgcc gccacggccc aagggtccag
 181 tcagttccga atgtcacccc gtgaactggt cgcgcaagtc ggcaccaaag tgacctgcg
 241 ctgtgagggtg ctggtgccta acgcgcgcgc gggatgctcg tggctcttc agccccgcca
 301 cgacgccaaa ggtcccacct tctctctgta ccatcgggcg tccgggacca agttggcccc
 361 agggctggaa cagaagcgat tcagcccctc gaagagcagt aacacctaca cctcacggt
 421 gaacagcttc cagaagcgag acgaaggcta ctactctgc tgggtctcg gcaacatgat
 481 gctctacttc agcccgctcg ttcccgctct cctgccagct cctgcacca cgacgcccc
 541 tccccctccc accacgccga cccccagcgt gcagcccacg tgggtgcgcc ccgagacgtg
 601 tgtggtctct aaggggcgag cagggtgcgag gtggctggat ctctctgtg atgtctacat
 661 ctgggcgccc ctggccagca catgcgcggc cctctgctg gcactggtca tcacgatcat
 721 ctgccaccgc aggaacagac aacgcgtttg caaatgtctt aggccccaaag ccagggtctg
 781 aggcaaacc agccctcag ggaagttagt ctaacaacat ggcgcccagc ctgtgcgaag
 841 ccactacatg actttatact gagatcattc ctggacagc aagtgtctct ctttgggtt
 901 tccagtcct ccttctatg taitgttct cattactatt ttagtgggca tggggggga
 961 agagtgtctt ttctgtaga caaaaaataa aacctatgag catctgcagc tcacaagggt
 1021 cacagggctg ttacctaca caggggttag ggtagcaagc agggctctca ggtactggaa
 1081 ttactccct tccactcact tgagggtggg cagcaccac gggcattta tccctcatca
 1141 tgctctcca cccacttgag ctcatatgcc acccaaagag cagtctatct aaaccaggc
 1201 caaacacatg caactgcctt ttgaaccga gagectaatt tatctgcaga gaatgcaagt
 1261 gctccttgt cacttatac ttgtccatga ccttaataa atgtgtgtct ttccctcaa
 1321 aaaaaaaaaa

NM_174015
Bos taurus (Cow)
Complete CD8 alpha mRNA

Predicted polypeptide

MASLLTALILPLALLLLDAAKVLGSLSFMSPTQKETRLGEKVE
LQCELLQSGMATGCSWLRHIPGDDPRPTFLMYLSAQRVKLAEGLDPRHISGAKVSGTK
FQLTLSSFLQEDQGYFCSVVSNSILYFSNFVPVFLPAKPATTPAMRPSSAAPTSAPO
TRSVSPRSEVCRTSAGSAVDTSRLDFACNIYIWAPLVGTGCVLLLSLVITGICYRRNR
RRVCKCPRPVVRQGGKPNLSEKYV

mRNA

1 gaattcggat ccaccatggc ctactcttg accgccctga tctgccgct ggccctgctg
61 ctgctgatg ccgccaaggc cctcgggtcg ctctcgtcc ggatgtgcc gacgcagaag
121 gagaccagac tgggcgagaa ggtggagctg caatgcgagt tctgcagtc cggcatggcg
181 acaggggtgt cctggctccg ccacataccc ggggacgacc ccagaccac ctctaatg
241 tacctctccg cccaacgggt caagctagcc gagggactgg accccagaca catttcggc
301 gccaaaggct ccggcaccaa attccagctc accctgagca gcttctcca ggaggaccaa
361 ggctactatt ttgctcgtt cgtgagcaac tcgatactgt acttcagtaa ctctgtcct
421 gtctcttg cagcgaagcc ggccaccacg ccggcgatgc ggccatccag cgcggcgccc
481 accagcgcgc cgcagactag gtcggtctct ccgcgatcag aggtgtgccg gacctggcg
541 ggcagcgcag tggacacgag ccggctggac ttgcctgca atatctacat ctgggtccc
601 ttggtcggga cctcggggt cctctcctg tcatttgtca tcacaggcat ctgtaccgc
661 cggaaccgaa gacgtgtctg caaatgtccc aggcctgtgg tccgacaagg aggcaagccc
721 aaccttcag agaaatatgt ctaacatggc gatgggcccc gtgtgacagc cactacaaga
781 ctgcactg agaactctcc tgagatcctt ccttttgat ttccctgc ttcttctt
841 ctgttatta ttattttica tgggggtggg gtgggaagag ttacttttc ttattattt
901 actttgatac aaaacaagac actcgtgtct aaggcatacc acaagggtta tcatgtgtt
961 gtgtcccat actcgggtag agggcgggcg ggccagagct accgcaagct ctattctag

FIG. 1G-1

1021 aacctggctg tgagaactgg tgggggcctc ggcacccact cagccccaac ttctctcca
1081 cccattttac aaaagaggac gctgaggccc agagatgggg aacagctgga tcagagtccc
1141 agcagggctc cacacaactg agatctttct tctggaggcc tctgtctcag cgtggggagc
1201 tggatctcaa gcctcagaga actagtatt tctgaagcat ctgtgataga cccatgactg
1261 caccagagc ctgatgagg taatgaaata ggacaagaaa acttgacaga gttctgtgat
1321 actgctgaac aggatcagat tttttttt ataataaagc atgaaatgat acagataata
1381 ggaattcttc caatgaagtg gaaggagtga actgaatgat ggaaatgag caacctgacc
1441 tctgaagaaa atctctggga aatcccagcc tggagatggt tctcccagcc ctgtattgc
1501 agaaggaccc tcaaagagga gaggccaccc tctgaagca tgatttgagc gttaggaaag
1561 ttgaatggag ttcaagctc tctaaacatt gagattccgt attcaaacat gctcctgggt
1621 tatcggtagg ttttatagt ttgtaaaggg agaattgtga ccgagcagct ggcacaggcc
1681 ctggcacccc aggctagcag ctgaggggaat gtgcagacac tggtaggag gctacgagcc
1741 cagctgcagc cctacaaggc atttcttcc ttactgtgt ctgcaaaaaa tgcattgctca
1801 ctgggagaaa aaatgtagct aaggtagtaa gaatcatccg taattcttta cctcaggat
1861 aatccattgt taatattatg ggctacattc ttctgatta tttctgtgc cctacatata
1921 aaatatataa ttttaaaaaa tgggattgca ctatgcttt ataaatggct ttaataaaca
1981 aacatttatg gcttactct t

FIG._1G-2

AY517855
Sus scrofa (Domestic pig)
Complete CD8 alpha mRNA

Predicted polypeptide

VELQCELMHSNTLTSCSWLYQKPGAASKPIFLMYLSKTRNKTAE
GLDTRYISGYKANDNFYLILHRFREEDQGYFFCSFLSNSVLYFSNFMSVFLPAKPTKT
PTTPPPKRTPTKASHAVSVAPEVCRPSGNADPRKLDLACDLYNWAPLVGTSGILLLSL
VITIICHRNRNRRRVCKCPRPVVRQGGKASPSERFI

mRNA

1 gtggagctgc agtgcgagtt gatgcactcc aacacactga caagctgttc ctggctctac
61 cagaagccgg gggctgcctc caagcccatc ttctcatgt acctctcaa aaccgggaat
121 aagacagccg aggggctgga caccogttac atctctgggt acaaggccaa tgacaacttc
181 taactcatcc tgcaccgctt ccgcgaggag gaccaaggct actatttctg ctcgctcctg
241 agcaactcgg tttgtattt cagcaacttc atgtccgtct tcttgccagc aaagcccacc
301 aagacgcoga ctacgccacc acccaagcgg actccacca aagcgtcgca cgccgtgtct
361 gtggccccag aggtgtgcgg gccctggggc aacgcagacc cgaggaagct ggacctcgcc
421 tgtgatctgt acaactgggc gcccttggtt gggacctccg gcactcttct cctgtcactg
481 gtcatcacca tcacttgcca ccgcgggaac agaagacgtg ttgcaaagt tccaggcccc
541 gtggtcagac agggaggcaa ggccagccct tcagagagat tcactaaca tggcgacatg
601 cccacgcag cagccactac aagacctcaa actgagacct ctccgggcag gagagcaagg
661 gtcccttctt ttccgtttcc ccagccttcc ttcttctt aagtattctt ctactatta
721 ttatttccat ggggggtggg tgggaagggt gacttttct ttgggtgttt actttaattg
781 acacaaaacg agactctatc acgtctttgg tacgccgcag gggttcgaac accgttgtgc
841 tcacacacac aacggtgaag ggtgggcggg ccagagctac cgcaagctgt gttctcagaa
901 ccaggctgtg agagctggtg ggggggtggg aggccctcgg caccacaca ggccaaacct
961 ctccccctgc ccccatctt acaaaggaat gaggtgagg ccagagatg ggggggtggc

FIG._1H-1



1021 ggatcagagc cccagcaagg ctccaggctc atcctccaca gcattlgggc ctctctcca
1081 ggggcctctg tctcagctgg gggagctgtg tctccacct caaggaaaca aggtttgctt
1141 gggcacctgt gatagactct gcactgtgcc cagagccccg gggaggcaat gcagtaagtc
1201 aaggggacgt gacagaggtc tacggtgcag ttgaacagga tcagatatat ttttttaat
1261 aatccagcat gaagttalat agataacagg aattcctcaa atagagtggga agggctgaac
1321 tgaatcctgg aaagtgaaca acacgacctc taaaggaaat ccaatgcaaa aaatctctaa
1381 gtggagacac agtggctctc ccaggggacc catgaaagag ggaagccgc ccttgcaaa
1441 tatgatttga gcatcgcaa agtcgaacgg aggtcggccc tctctaaatg tgagatctga
1501 tattigaacg tgctcctcgg atcattgatg ggttttttg gtttgtaaac acagaattat
1561 gaccgagtag ctggcctccc ctggaccagc agctgtggat atggggcaga ctctgatgag
1621 gaggctagga gccagactg ctgccctcta cgcgcatctc ctctctaac catgtgtac
1681 aagaaatgcg tgctcgctgg aagaaaaaac taaataataa gagtcacca taattcttta
1741 ctctggtat aactcattgt taatattatg gtgtacatc ttctgatta tttctatgc
1801 acgtatataa aatgtatact ttttaaaaat ggaattgtac tatgcttta gaagtggttt
1861 taataaacat ttctgctatg aaaaaaaaaa a

FIG._1H-2

D16536
Felis catus (cat)
Complete CD8 alpha mRNA
Predicted polypeptide

MASPVTAQLLPLALLLHAAAAAGPSPFRLSPVRVEGRLGQRVEL
QCEVLLSSAAPGCTWLFQKNEPAARPIFLAYLSRSRTKLAEEELDPKQISGQRIQDTLY
SLTLHRFRKEEEGYFCSVVSNSVLYFSAFVPVFLPVKPTTTPAPRPPTQAPITTSQR
VSLRPGTCQPSAGSTVEASGLDLSCDIYWAPLAGTCAFLLLSLVITVICNHRNRRRV
CKCPRPWRAGGKPSPSERYV

mRNA

1 atggcctctc cggtgactgc ccagctcctg ccgctggcct tgctgctca tgccgccga
61 gccgccgggc cgagcccggt ccgcttatcg cccgtgaggg tggagggcag gctcggccag
121 cgggtggagc tgcagtgcga ggtgctgctg tccagcgagg cgccgggctg cacctggctc
181 ttccagaaga acgaacctgc cgcccgcccc atcttctgg cgtacctc cagaagccgg
241 accaagttgg ccgaggagct ggaccccaaa cagatctcgg gccagaggat tcaggacacc
301 ctctacagtc tcacctgca cagattcgc aaggaggaag aaggctacta ttctgctcg
361 gtctgagca actccgttct gtacttcagc gccttcgtcc cggcttctt gccagtcaag
421 cccaccacta cgcccgcgcc ggcaccgccc acgcaggcgc ccatcaccac gtgcagcgg
481 gtgctctgc gcccggggac ctgccagcct tcagcgggca gcacagtgga agcaagtggg
541 ctggatttgt cctgtgacat ctacatctgg gcacctctgg ctgggacctg cgccttctt
601 ctctgtgcg tggatcacat cgtcatctgc aaccacagga accgaagacg tgtttgaaa
661 tgtccgaggc ccgtggtcag agcaggaggc aagcctagcc cgtcagagag atacgtctaa
721 catggagatg ggcccatgc accagccact acaagaccaa ataaaactct cttatgagg
781 acagt

FIG. 11

AY065643

Sigmodon hispidus (Hispid cotton rat)

Complete CD8 alpha mRNA

Predicted polypeptide

MAPRVTRFLCLTLLLEFIAELGGSKDFEMSPKKVVAHLGKEVRL

TCEVWVSTSQGCSWLFLEHGSGVKPTFLIYLSGSRNERNNKIPSTKLSGKKEDKKYTL

TLNNFAKEDEGYFCSVTSNSVVYFSPLVSVFLPEKPTTPVPKPPTSVPPTAISRLR

PEACRPGAGTSVEKKGWDFDCDIILAPLAGLCGVLLLSLVTTLICCHRNKRKRVCKCP

RPVVRQGGKPSPSGKLV

mRNA

1 ctctgcttg accaagctg ctggtggaag cactgccatg gcccccgagg tgacccgctt
 61 tctgigctg accctgctgc tggaaattat cgctgagctc ggaggctcga aagatttoga
 121 aatgtctcct aagaaggctg tgcgccacct tggcaaggag gtgaggctaa catgcgaagt
 181 gtgggtgtct acttcgcaag gatgctcttg gctcttctg gagcatggct ccggagttaa
 241 acccacttc ctcactatc tctctgggag ccgcaacgaa cggaataaca aaataccttc
 301 aactaagcta tctgggaaga aggaagacaa aaagtacacc ctcacctga ataatttgc
 361 taaggaagac gaaggctact atttctgctc tgcacaagc aactcggctg tgtacttcag
 421 tctctctg tggtcttctc tgccagagaa acctaccaca ccagtgcga aaccacccac
 481 atcagtcccc actacggcga tatctggctc cctgcgacca gaagcttgcg gacctggagc
 541 cggcacctca gtggagaaga agggatggga ctctgactgt gatatcatca tttggcacc
 601 cttagctgga ctctgtggg tcttctgct gtctctggc accacactca tctgtgcca
 661 caggaacaga aaacgagtct gcaaatgtcc caggcccggt gtcagacaag gaggcaagcc
 721 cagcccttca gggaaactcg tgaagatgg cgccaagaaa ctacaactac tacttcagag
 781 acctctcat cttagctcc agctctcctt ctcaattt tctaccttc ctatatattg
 841 tctttgtat tattttagtg ggggtaggac aggggtggaa ccatttctt tcttaigaa
 901 ttcactttga caaaaacaa gaccacataa tgtccacggg ataccataag ggcaggagct
 961 gttgctgctg acatagcatg tgggggaagt acagaacagc tgtctgggtt cttaggatca
 1021 gtggatgalt agcaccact tgatgatcta aatgccctgt ctgccatta tatagaagag
 1081 gtgaaggctc agaaatggg tgggcaggat ctgtgcacca ggagagaacc caagctgacg
 1141 aaatctcac tggatggctc aggaacttg cctctatac ctgagttctc ttatttcagg
 1201 cctgtgctg gtagtgtga ggctgagta

AJ130818

Saimiri sciureus (Common Squirrel Monkey)

Complete CD8 alpha mRNA

Predicted polypeptide

MASPVTALLLPLALLLHAARPSRFRVSPLDRTWNLGDKVELKCE

VLLSNPSSGCSWLFQKRGAAASPTFLLYISQTKPKVADGLDAQRFSGKKMGDSFILTL

RDFREEDQGFYFCSALSNSIMYFSPFVPVFLPAKPTTTPAPRPPTPEPTTASQPLSLR

PQACRPPAGGAVDTRGLDFACDIYWVPLAGTCGVLLLSLVITVYCNHRNRRRVCKCP

RPAVKSGGKPSPSERYV

mRNA

1 atggcctctc ccgtgaccgc ctgtctctg ccgtggccc tctgtctcca cgctgccagg
61 ccgagccggt tccgggtgtc gccgctggat cggacctgga acttgggcca caaggtggag
121 ctgaagtgcg aggtgctgct gtccaacccg tctcgggct gctcgtggct ctccagaag
181 cggggcgctg ccgccagccc caccttctc ctgtacatct cccaaaccaa gcccaagggtg
241 gccgatgggc tggacgccc ggccttctcc ggcaagaaga tgggggacag ctctattctc
301 acctgcgcg acttcgcga ggaggaccag ggcttctatt tctgctcggc cctgagcaac
361 tccatcatgt acttcagccc ctctgtccg gtcttctgc cagcgaagcc caccacgacg
421 ccagcgccgc gaccacccac accggagccc accaccgcgt cgcagccct gtccctggt
481 ccacaggctt gccggcccc gccggggggc gcagtggaca cgagggggct ggacttcgcc
541 tgtatatct acatctgggt gccctggcc gggacctgcg gggctctct cctgtcactg
601 gtcalcaccg ttattgcaa tcacaggaac cgaacgacgtg ttgcaaagt tccccgccct
661 gcggtcaagt ctggaggcaa gccagccct tcggagagat acgtctaa

FIG. 1K

Domains of the CD8 α -Chains

Leader

Transmembrane**Human CD8 α -Chain**

Protein:

MALPVTALLL	PLALLLHAAR	PSGFRVSPLD	RTWNLGETVE	LKCGVLLSNP
TSGCSWLFGP	RGAAASPTFL	LYLSGNKPKA	AEGLDTGRFS	GKRLGDTFVL
TLSDFRRENÉ	GYIFCSALSN	SIMYFSHFVP	VFLPAKPTTT	PAPRPPTPAP
TIASGPLSLR	PEACRPAAGG	AVHTRGLDFA	<u>CDIYIWAPLA</u>	<u>GTCGVLLLLSL</u>
<u>VITLYCNHRN</u>	RRRVCKCPRP	VKSGDKPSL	SARYV	

mRNA - coding

atggccttac	cagtgaccgc	cttgctcctg	ccgctggcct	tgctgtcca
cgccgccagg	ccgagccagt	tccgggtgtc	gccgctggat	cggacctgga
acctgggcca	gacagtggag	ctgaagtgcc	aggtgctgct	gtccaacccg
acgtcgggct	gctcgtggct	cttcacagccg	cgcggcgccg	ccgccagtcc
caccttcctc	ctatacctct	cccaaaacaa	gccaagggcg	gccgaggggc
tggacaccca	gcggttctcg	ggcaagaggt	tgggggacac	cttcgtcctc
accctgagcg	acttccgccg	agagaacgag	ggctactatt	tctgctcggc
cctgagcaac	tccatcatgt	acttcagcca	cttcgtgccg	gtcttcctgc
cagcgaagcc	caccacgacg	ccagcgccgc	gaccaccaac	accggcgccc
accatcgcg	cgcagcccc	gtccctgcgc	ccagaggcgt	gccggccagc
ggcggggggc	gcagtgcaca	cgagggggct	ggacttcgcc	tgtgatatct
<u>acatctgggc</u>	<u>gcccttgccc</u>	<u>gggacttgtg</u>	<u>gggtccttct</u>	<u>cctgtcactg</u>
<u>gttatcaccc</u>	<u>tttactgcaa</u>	<u>ccacaggaac</u>	<u>cgaagacgtg</u>	<u>tttgcaaata</u>
tccccggcct	gtggtcaaat	cgggagacaa	gcccagcctt	tcggcgagat
acgtctaa				

FIG._2A

mouse CD8 α -Chain

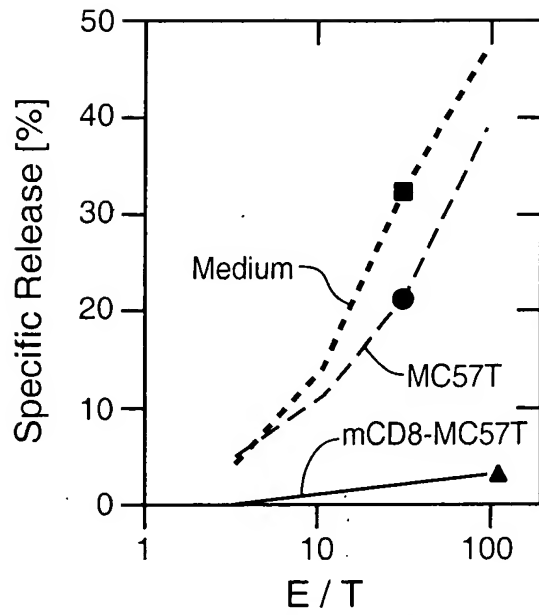
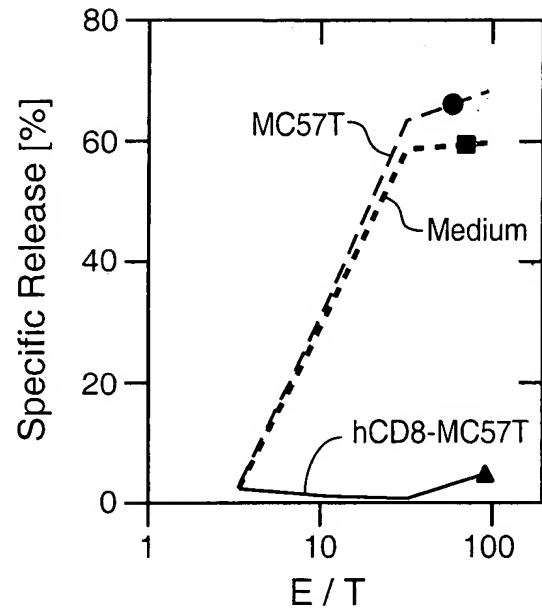
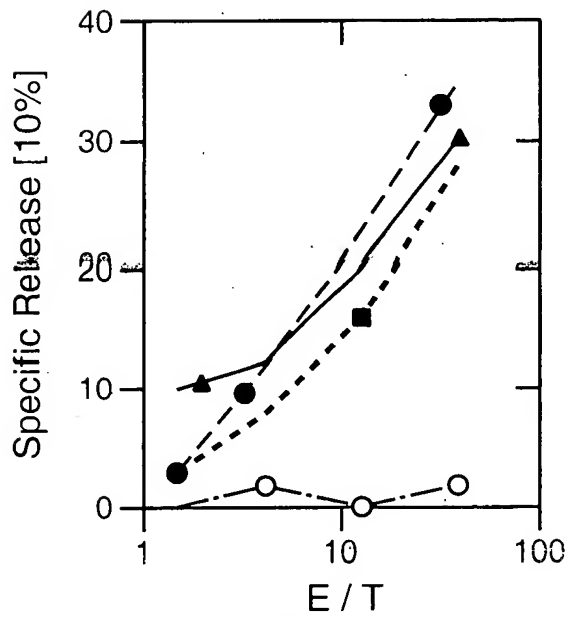
Protein:

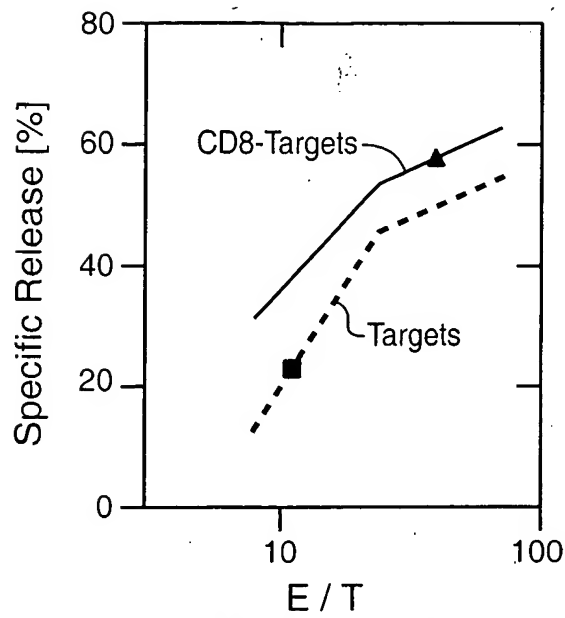
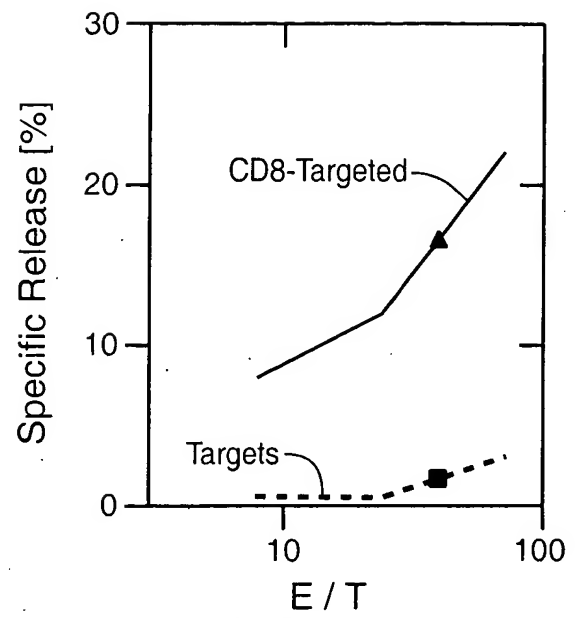
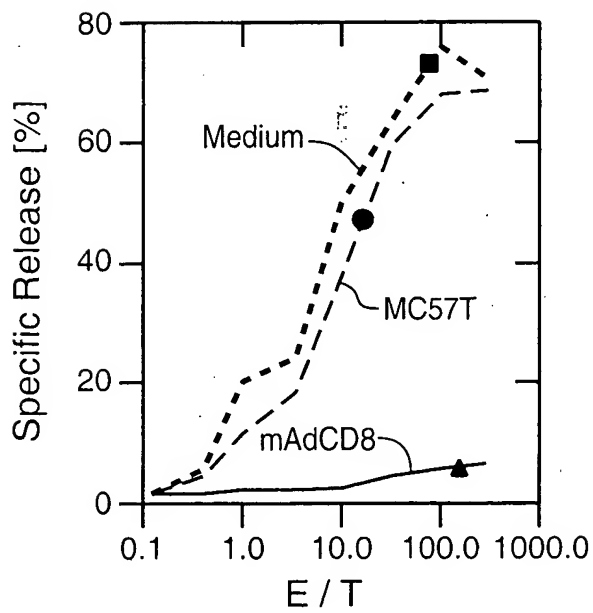
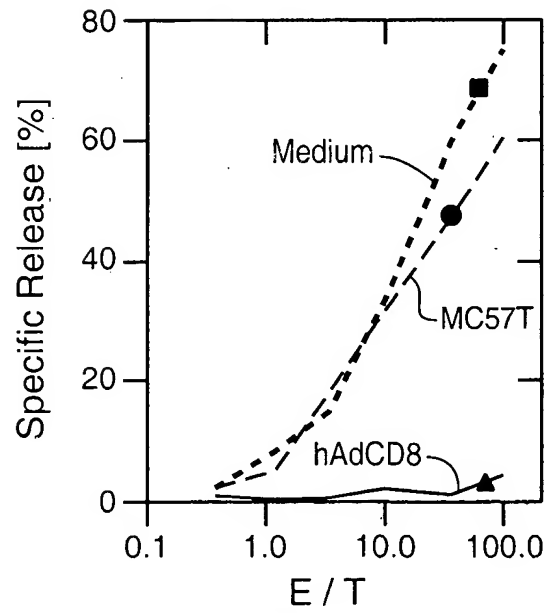
MASPLTRFLS LNLLLLGESI ILGSGEAKPG APELRIFPKK MDAELGGKVD
 LVCEVLGSVS GGCSWLFGNS SSKLPGPTFV VYMASSHNKI TWDEKLNSSK
 LFSAMRDTNN KYVLTlnKF S KENEGYYFCS VISNSVMYFS SVVPVLGKVN
 STTTKPVLRT PSPVHPTGTS GPGRPEDCRP RGSVKGTGLD FACDIYIWAP
LAGICVALLL SLIITLICYH RSRKRVCKCP SIACLCLKLG GSKWYESVIC
 SALAVSIRC N KSKSGELPLA VHLDIRAPCK NWEIAGSLVE RYGKSGKHSP
 LSLKAVVESN

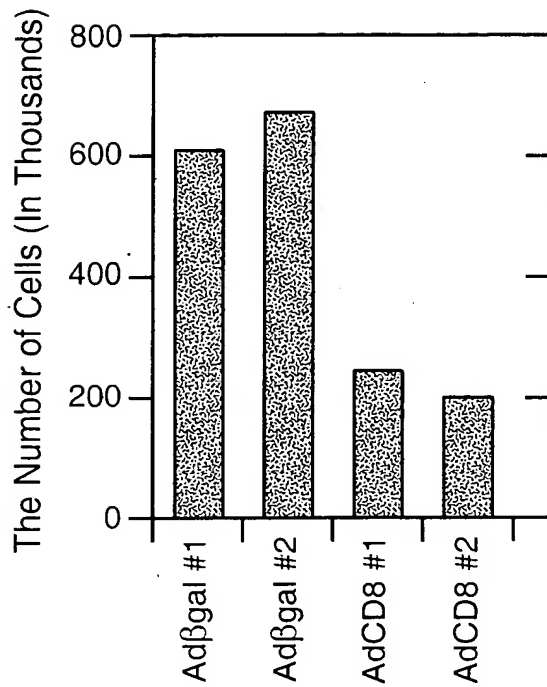
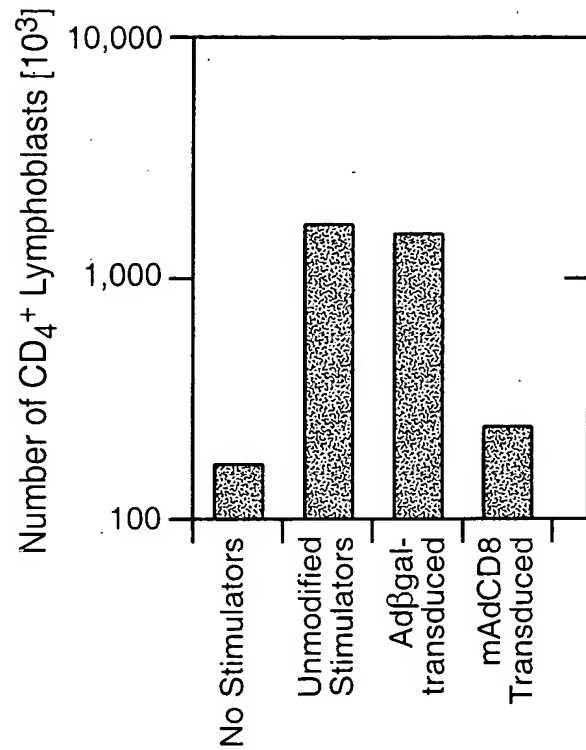
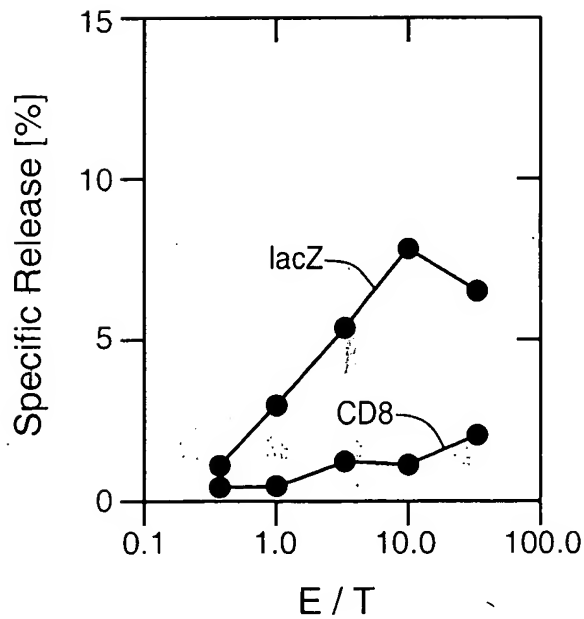
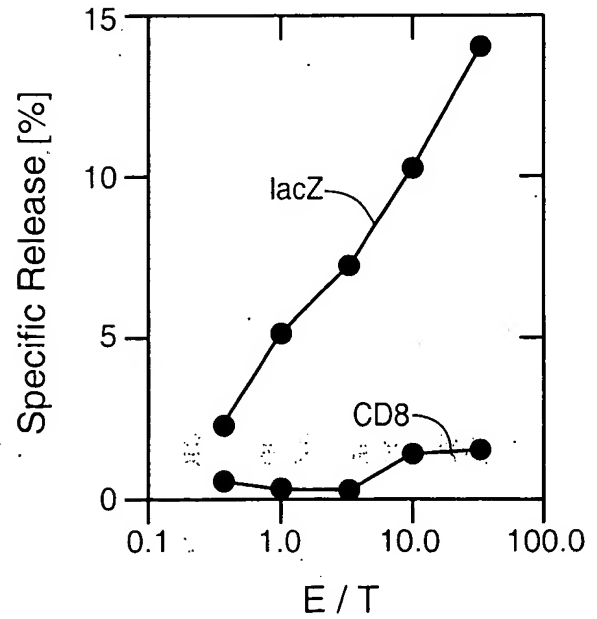
mRNA Coding

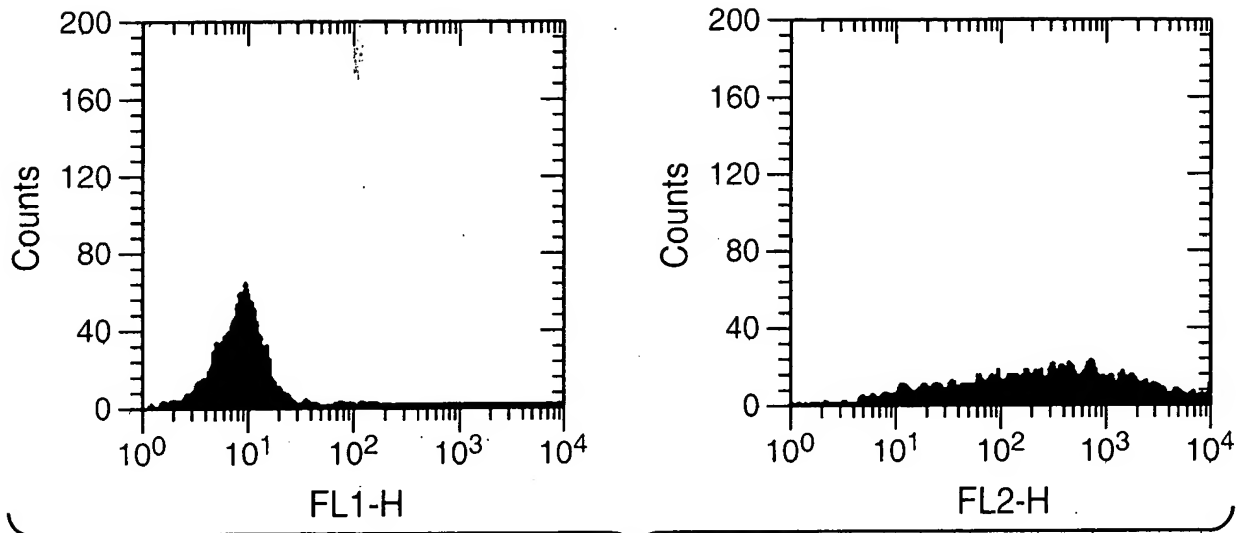
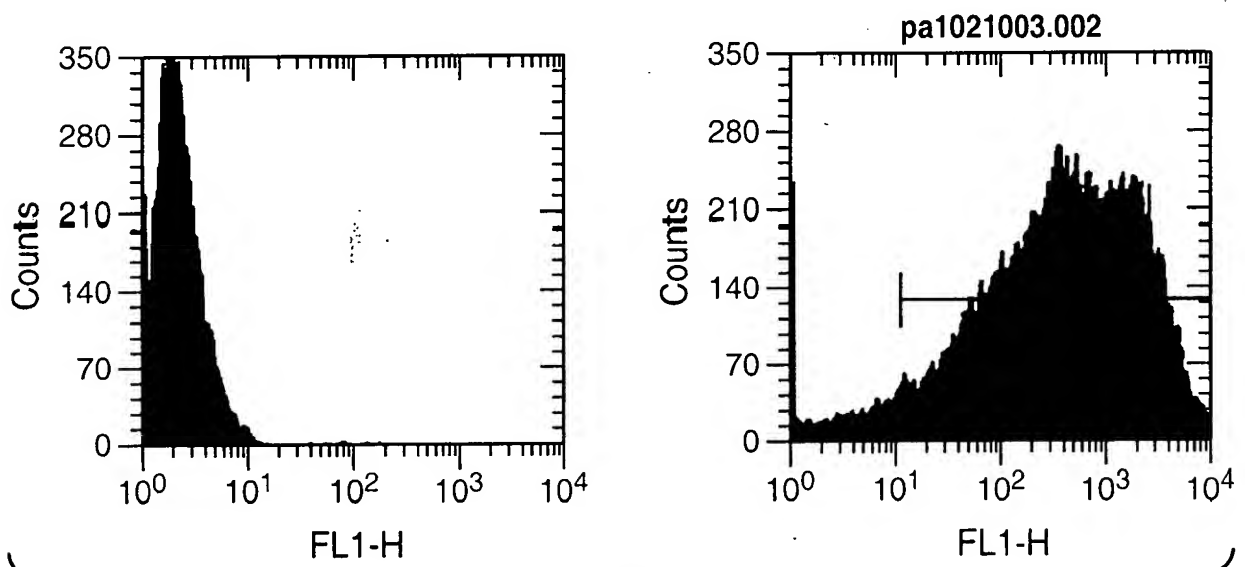
atggcctcac cgttgacccg ctttctgtcg ctgaacctgc tgctgctggg
tgagtcgatt atcctgggga gtggagaagc taagccacag gcacccgaac
 tccgaatctt tccaaagaaa atggacgccg aacttggtca gaaggtggac
 ctgggtatgtg aagtgttggg gtccgtttcg caaggatgct cttggctctt
 ccagaactcc agctccaaac tccccagcc caccttcgtt gtctatatgg
 cttcatccca caacaagata acgtgggacg agaagctgaa ttcgtcgaaa
 ctgttttctg ccatgaggga cacgaataat aagtacgttc tcaccctgaa
 caagttcagc aaggaaaacg aaggctacta tttctgctca gtcacagca
 actcgggtgat gtacttcagt tctgtcgtgc cagtccttca gaaagtgaac
 tctactacta ccaagccagt gctgcgaact ccctcacctg tgcaccctac
 cgggacatct cagccccaga gaccagaaga ttgtcggccc cgtggctcag
 tgaaggggac cggattggac ttcgcctgtg atatttacat ctgggcaccc
ttggccggaa tctgcgtggc ccttctgctg tccttgatca tcactctcat
ctgctaccac aggagccgaa agcgtgtttg caaatgtccc agtatagcat
 gcttgtgcct caaactgcaa ggaagcaagt ggtatgaatc tgtgatctgc
 tcagctctgg ctgtgagcat cagatgtaac aaatcaaagt caggagaact
 gccttttagcg gtgcacctgg acatcagagc cccttgtaag aactgggaaa
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FIG._2B

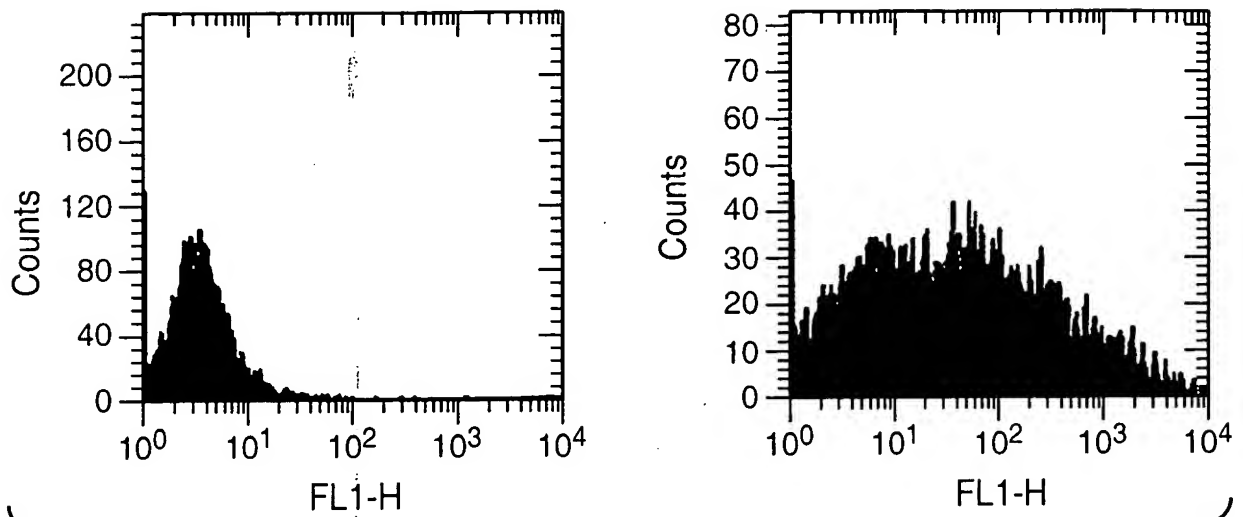
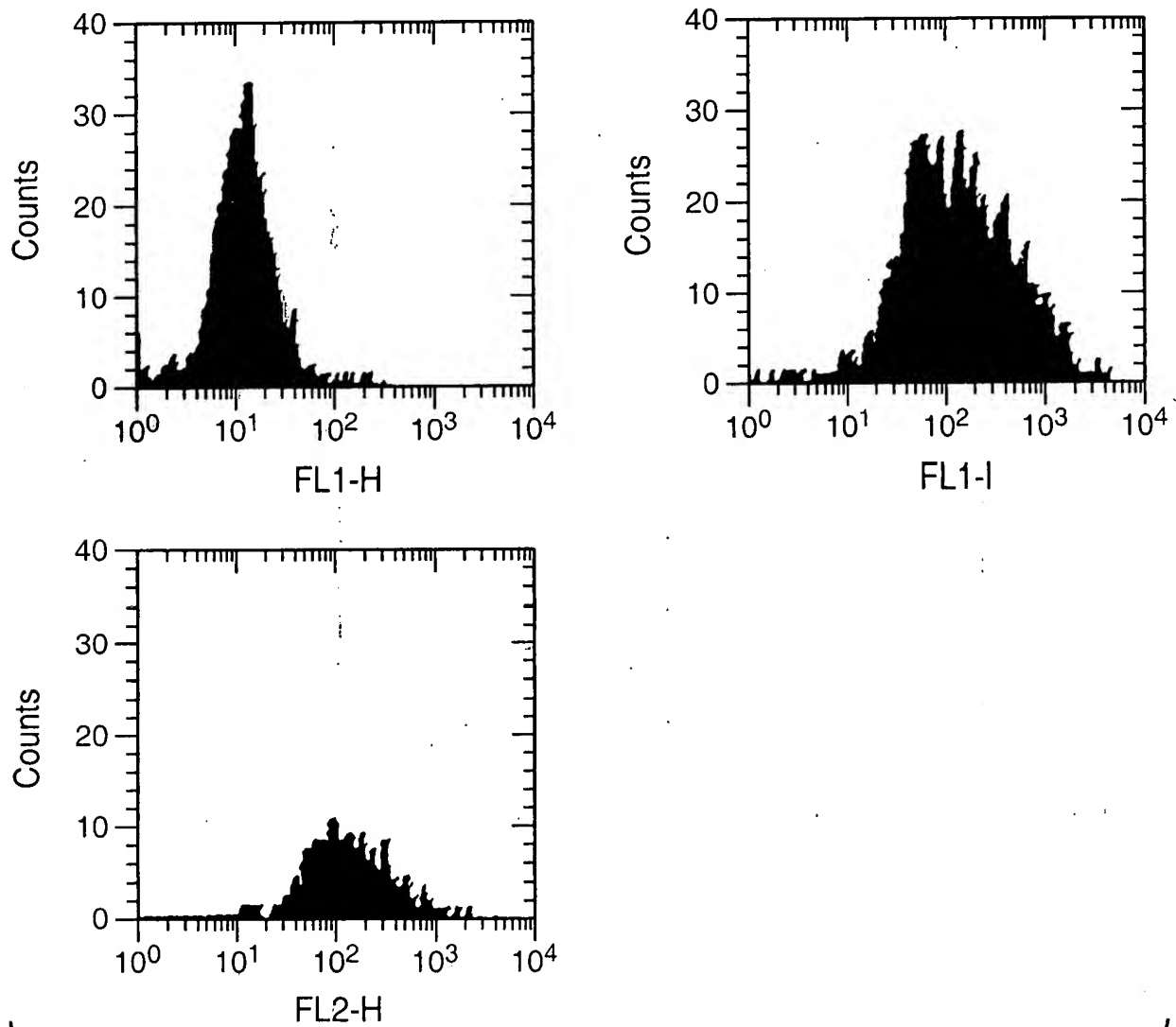
**FIG. 3A****FIG. 3B****FIG. 4**

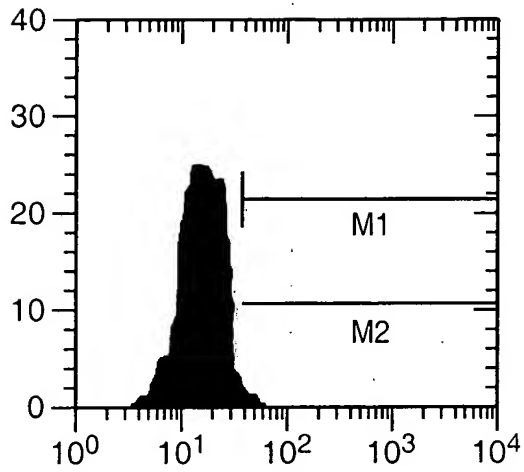
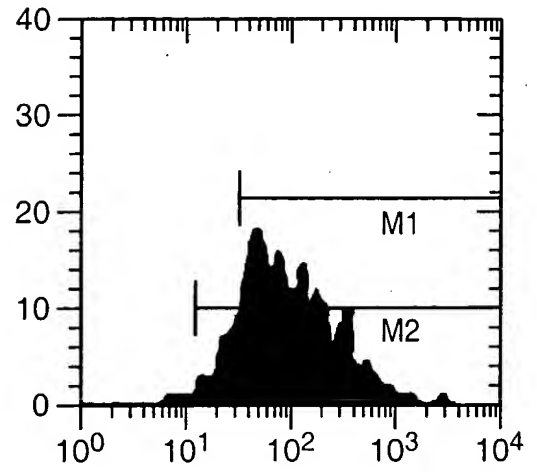
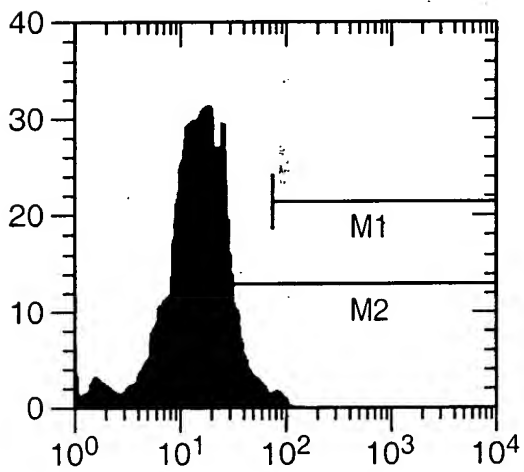
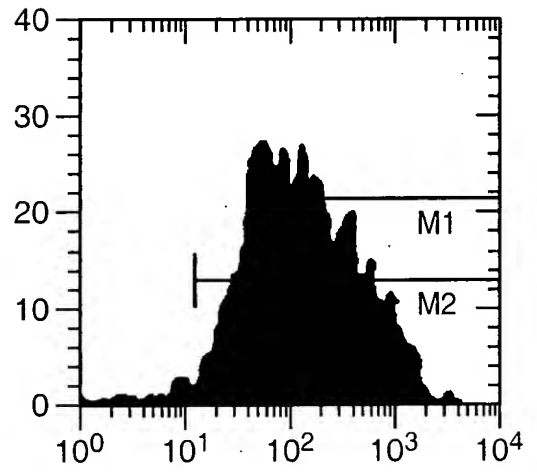
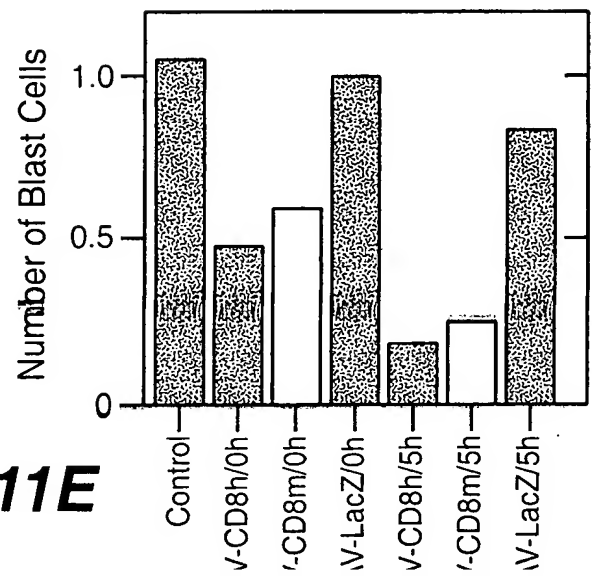
**FIG. 5A****FIG. 5B****FIG. 6A****FIG. 6B**

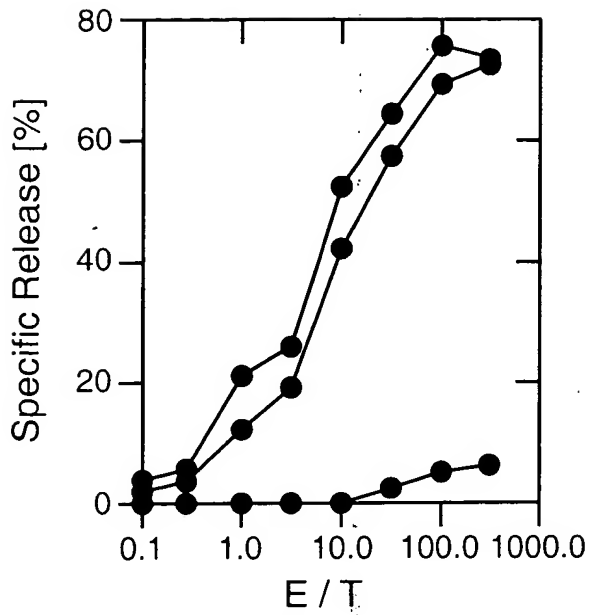
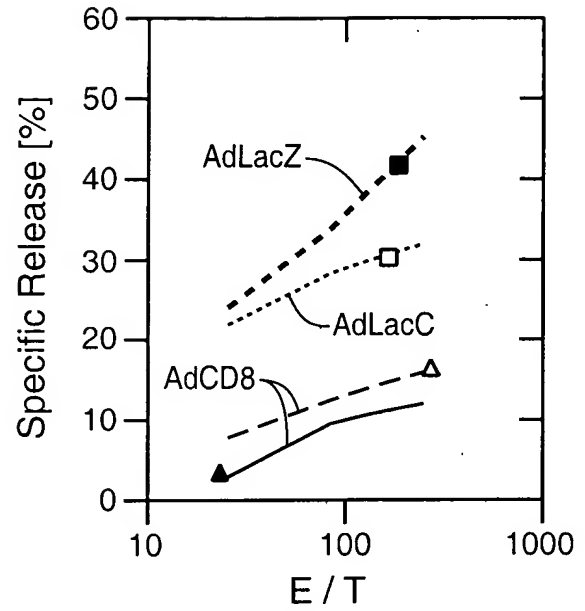
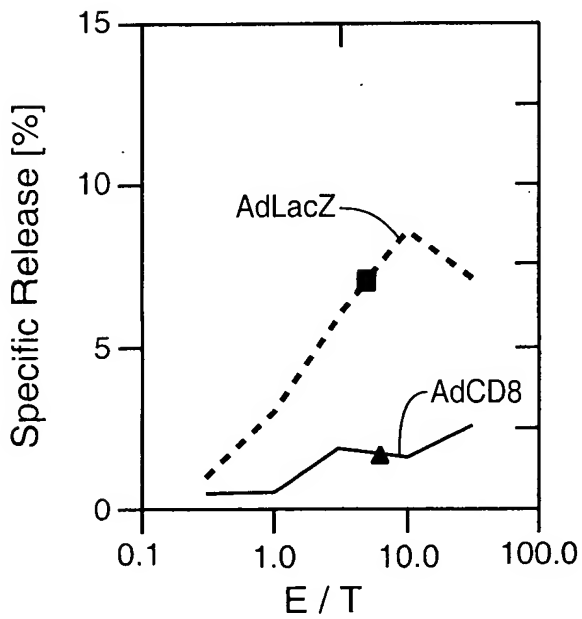
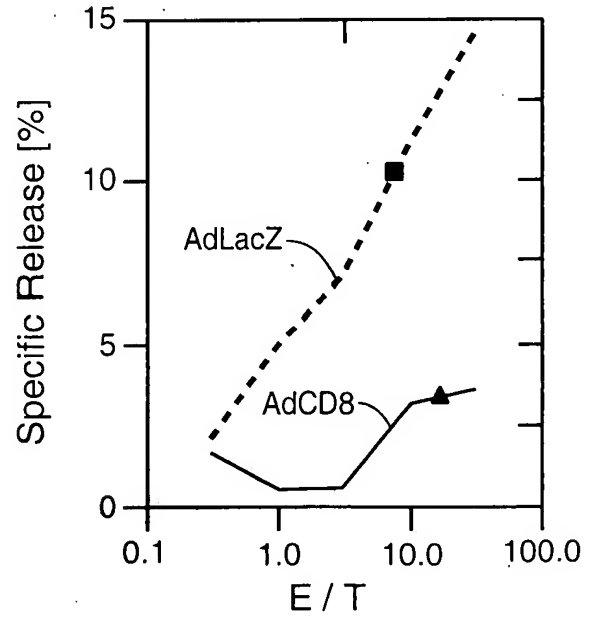
**FIG._7****FIG._9****FIG._8A****FIG._8B**

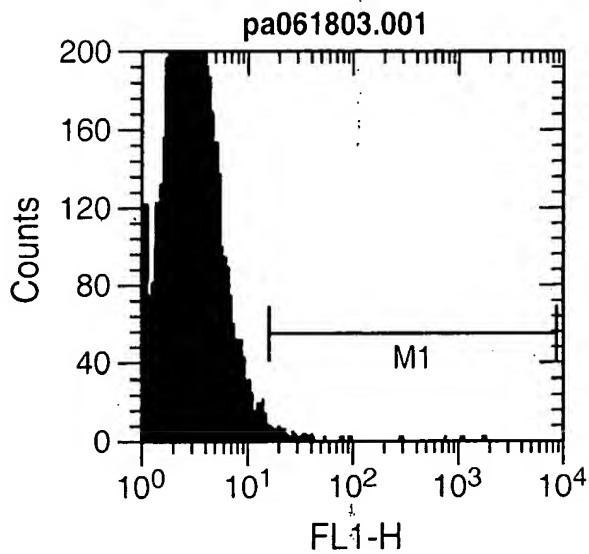
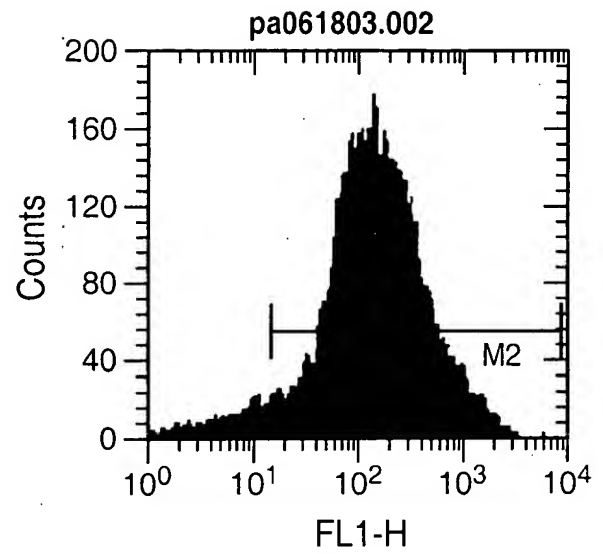
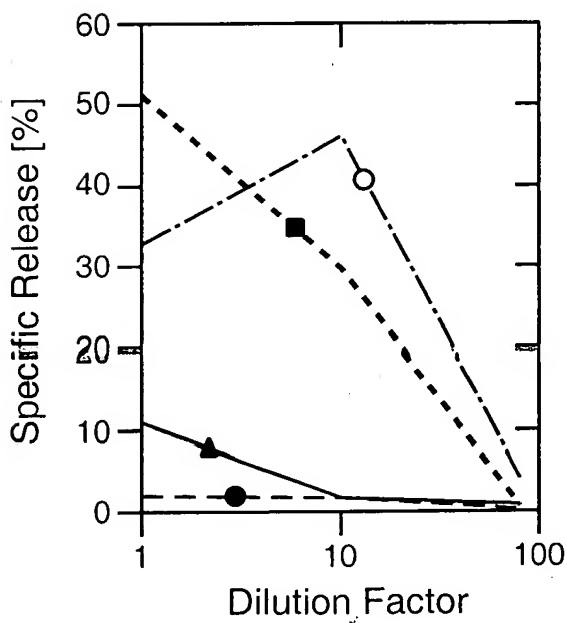
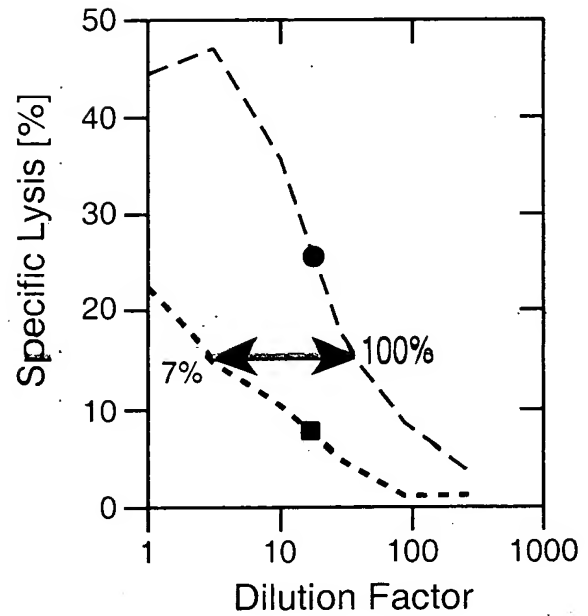
**FIG. 10A****FIG. 10B**

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**FIG. 10C****FIG. 10D**

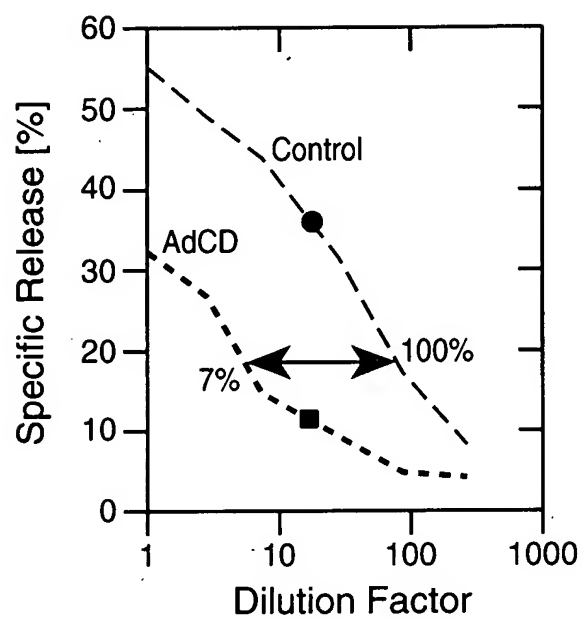
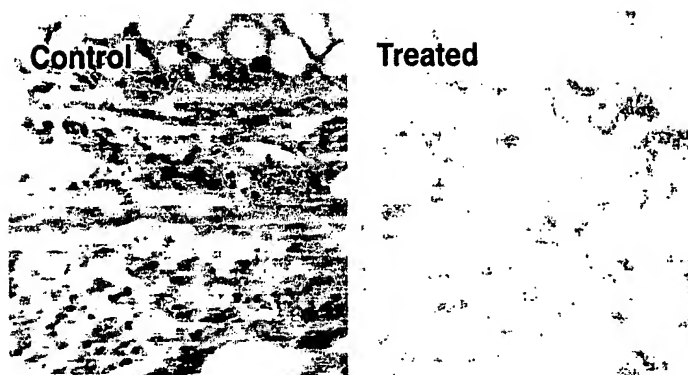
**FIG. 11A****FIG. 11B****FIG. 11C****FIG. 11D****FIG. 11E**

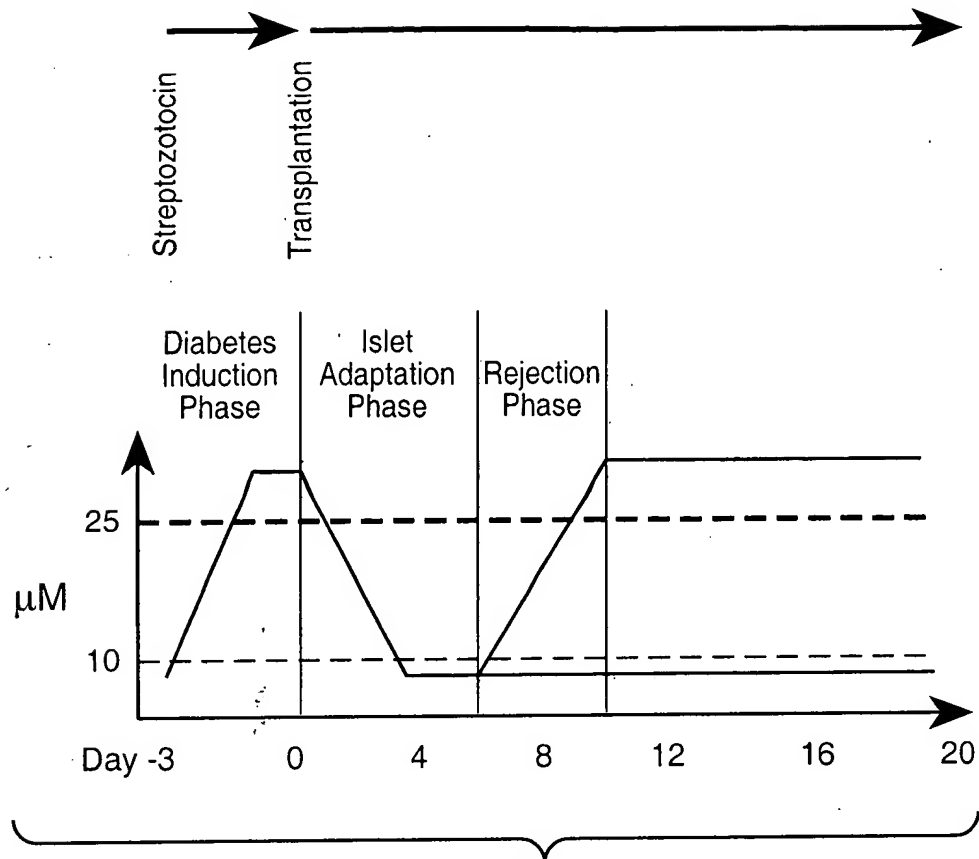
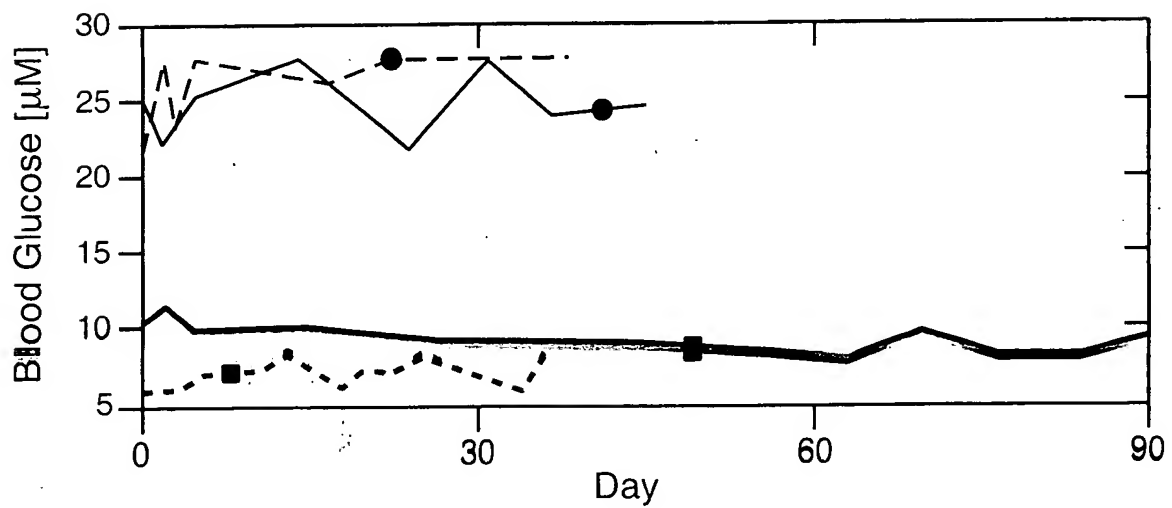
**FIG. 12****FIG. 13****FIG. 14A****FIG. 14B**

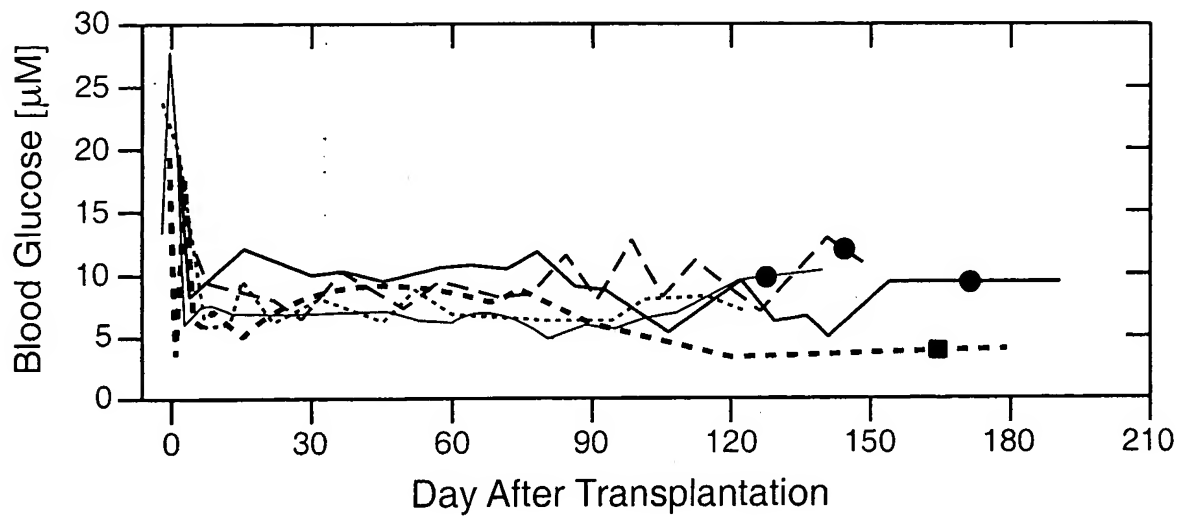
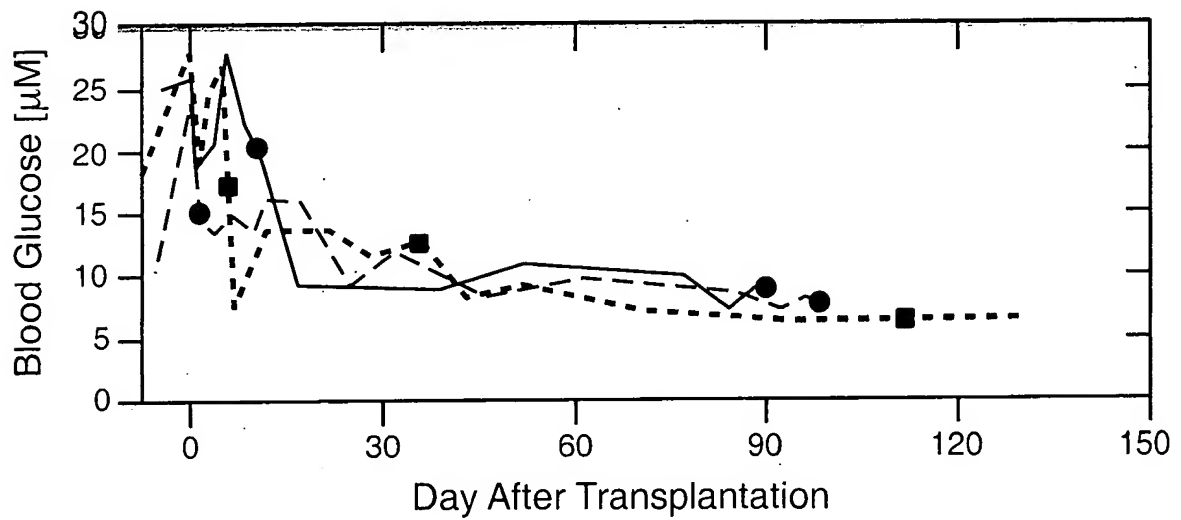
**FIG._15A****FIG._15B****FIG._16****FIG._17**

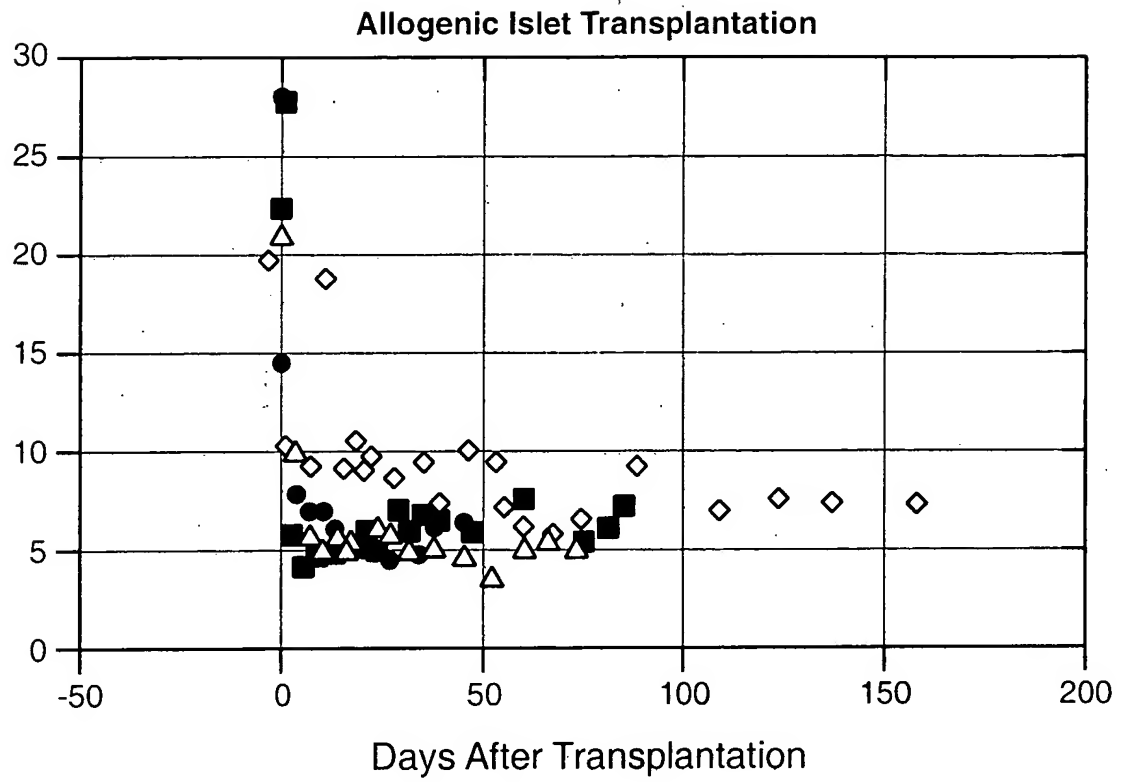
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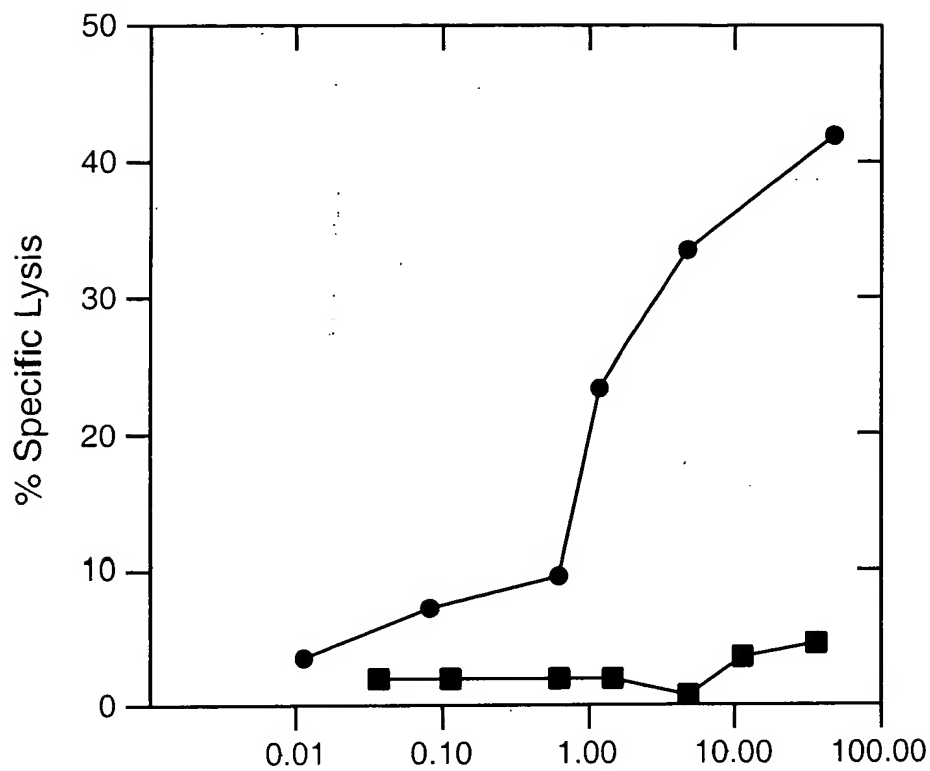
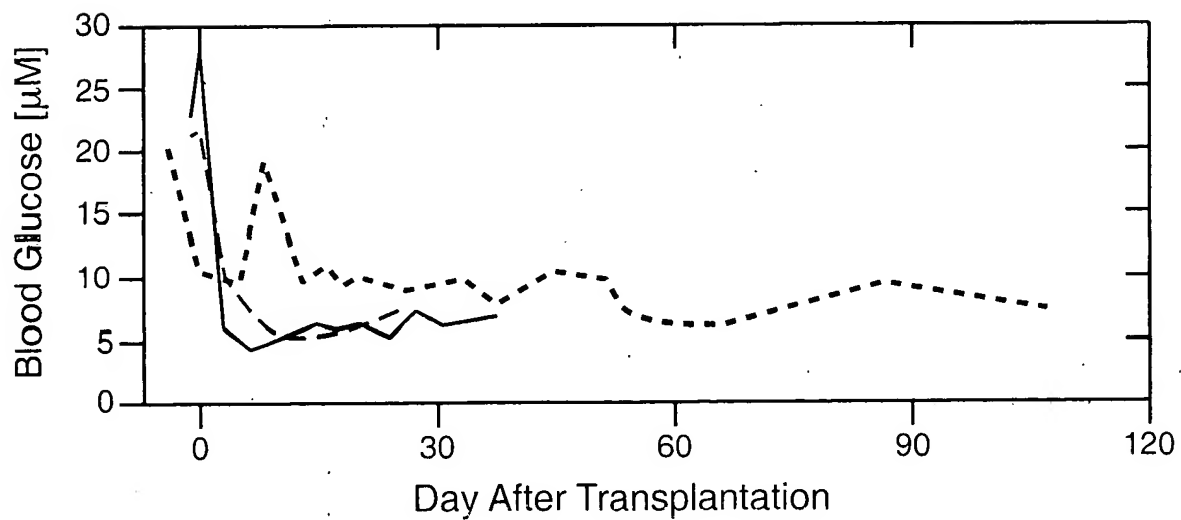
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**FIG. 18**

**FIG. 19****FIG. 20**

**FIG. 21****FIG. 22**

**FIG. 23**

**FIG. 24****FIG. 25**